Anderson et al. at col. 14, lines 15-32 do not disclose such encoded beads, where the "labeling indicates the type of biomolecule displayed on particular beads and the type of analyte said biomolecule is capable of binding with." In fact, this portion of Anderson et al. does not even mention beads – and thus does not relate to encoded beads. This is clarified by examining the sections before this part of col. 14, where Anderson et al. do not refer to beads, but to binding to a "solid support" or a "gel" (starting from the bottom of col. 12):

> In addition to methods by which a receptor or molecule of interest is immobilized and used to bind an analyte, general methods exist for arranging to immobilized members of a class of reactants. For example, protein A or protein G may be immobilized and used to subsequently bind specific immunoglobulins which in turn will bind specific analytes. A more general approach is built around the strong and specific reaction between other ligands and receptors such as avidin and biotin. Avidin ***may be immobilized on a solid support or attached to a gel*** and used to bind antibodies or other reactants to which biotin has been covalently linked. This allows the production of surfaces to which a very wide variety of reactants can be readily and quickly attached (see Savage et al., Avidin-Biotin Chemistry: A Handbook Pierce Chemical Company, 1992).

Anderson et al. go on to note with respect to "fluorescence" that it is used to detect reactions, not for labeling of beads (col. 13, lines 14-25):

> A wide variety of methods have been developed ***to detect reactions*** between immobilized molecules of interest and soluble reactants. These differ chiefly in the mechanism employed to produce a signal, and in the number of different reagents which must be sandwiched together directly or indirectly to produce that signal. These include fluorescence (including delayed fluorescence) with the fluorescent tag covalently attached to the analyte, fluorescence involving soluble dyes which bind to an analyte, and similar dyes whose fluorescence greatly increases after binding an analyte.

Anderson et al. also describe sectioning a gel which includes reactants and then displaying it on a flat surface (encoded beads are not used, see col. 13 bottom to col. 14):

> The sections (as microarray chips) may be attached directly to adhesive surfaces on flexible films or on solid surfaces, such as glass slides. It is also feasible to attach sections (the word "section" is used here in place of "chip") at intervals along a film strip, with others interleaved between them. Thus a set of about a dozen or more different sections may be placed in repeating order along the film, and the film then cut up to give one set. For sequencing studies, one DNA insert

may be amplified, labeled, and its hybridization to a large set of sections examined.

Against this background, Anderson et al. then state at col. 14, lines 15 et seq:

> Most immunochemical or competition assays depend on a signal produced by a reagent other than the analyte. However, methods for fluorescently labeling all proteins containing aliphatic amino groups in a complex mixture have been developed which are reproducible and quantitative. Of these CyDyes supplied by Amersham Life Sciences, and particularly, Cy2, Cy3 and Cy5 have proven most useful. ***When the components of such labeled mixtures are reacted with an array of immobilized antibodies, each specific antibody to one of the fluorescently labeled analytes, the presence of each of the specifically bound labeled analyte can be detected by fluorescence.*** This method can be further improved by exposing the bound antibody array to a solution containing known subsaturating quantities of each protein in a non-fluorescent form, washing the bound antibody array, and exposing it to a test mixture of labeled proteins, thus producing a multiple competition assay.

Thus, there are no beads mentioned or implied here, and no "encoded beads" because the fluorescence is used to detect a bound analyte – not for encoding of a bead. This section of Andserson et al. is a description of laying an array of antibodies on a surface, where one knows which antibody is at which location based on their position (not by attachment to an encoded bead), and then, following reaction, fluorescence is used to indicate which antibody reacted. The antibody identity is then decoded based on its location on the array. Clearly, therefore, Anderson et al. is not anticipatory, and the rejections should be withdrawn.

With respect to the rejections under Section 103(a) of claims 88 and 91, it is clear that because elements of the independent claim are not disclosed or suggested in Anderson et al., these rejections should also be withdrawn.

In conclusion, all rejections have been overcome, and allowance of the application is respectfully sought.

Respectfully submitted,

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